

REMARKS

In the Office Action, claims 1-11 and 14-15 were rejected. By the present Response, claims 1 and 14 are amended. Claims 12 and 13 are canceled and new claims 16-22 are added. Upon entry of the amendments, claims 1-11 and 14-22 will be pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Rejections Under 35 U.S.C. § 102

The Office Action summarizes claims 1-11 and 14-15 as rejected under 35 U.S.C. §102(b) as being anticipated by Oppitz (U.S. Patent No. 4,616,125).

By the present response independent claims 1 and 14 are amended and claims 12 and 13 are canceled. Further, new claims 16-22 are added. Independent claims 1, 14 and 22 and the claims depending therefrom are believed to be patentable for the reasons summarized below.

Claim 1

Claim 1 has been amended to include the recitations regarding the conductive composite. Amended claim 1 recites an apparatus with a self heating feature comprising at least one conductive component. The conductive component, in turn, comprises a conductive composite. The conductive component is adapted to couple with a source of electricity, such that the conductive component heats up on passage of electricity. The conductive composite includes an organic polymer and a nanosized conductive filler. The recitations of claim 1 are fully supported in the specification. *See, e.g.*, Paragraphs 29, 98, 99, and elsewhere.

The Examiner argued that Oppitz discloses an apparatus with a self heating feature comprising conductive composite, wherein the at least conductive composite is adapted to couple with a source of electricity. Applicants respectfully submit that Oppitz

teaches a heating element that includes a resistance layer disposed between two planar electrodes. The resistance layer includes a matrix of an electrically conductive synthetic resin material having a positive temperature coefficient of electrical resistance. A particulate thermally and *electrically insulating* filler material is dispersed throughout the synthetic resin material matrix. *See, e.g.,* Oppitz Abstract.

Applicants respectfully submit that Oppitz does not teach the composite having a *conductive* filler material. The present invention uses nanosized conductive fillers in the conductive composite. The nanosized conductive fillers may be 1, 2 or 3- dimensional and may exist in the form of powder, drawn wires, strands, fibers, tubes, nanotubes, rods, whiskers, flakes, laminates, platelets, ellipsoids, discs, spheroids and the like. *See, e.g.,* Paragraphs 62-85. Oppitz does not teach such a composition or its use in a heating element.

Applicants respectfully submit that a *prima facie* case of anticipation cannot be supported by Oppitz against claim 1. Therefore, it is submitted that independent claim 1 and its dependent claims are allowable and respectfully request the Examiner to reconsider rejection of the claim.

Claim 14

Claim 14 has been similarly amended to include the recitations regarding the conductive composite. Amended claim 14 recites a method for providing heating in an apparatus. The method includes heating at least one conductive component of the apparatus, wherein the heating is done by passing an electric current through the conductive component. The conductive component includes a conductive composite that includes an organic polymer and a nanosized conductive filler.

As discussed above with reference to claim 1, Oppitz teaches the use of thermally and *electrically insulating* filler material. Oppitz does not teach the composite having a

conductive filler. Therefore, Applicants submit that independent claim 14 is allowable and respectfully request the Examiner to reconsider and withdraw the rejection of the claim.

Dependent claims

Claims 2-11 and 15-21 depend from independent claims 1 and 14, respectively. Applicants respectfully submit that inasmuch as independent claims 1 and 14 are allowable, claims 2-11 and 15-21 are allowable at least by virtue of their dependence from an allowable base claim.

New Claims 16-22

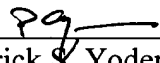
Claims 16-22 are believed to be allowable for the same reasons as claims 1 and 14. Independent claim 22 recites an apparatus with a self heating feature comprising at least one conductive component. Again, the component comprises a conductive composite. The conductive component is adapted to couple with a source of electricity. The conductive component heats upon passage of electricity. The conductive composite includes an organic polymer, a nanosized conductive filler and carbon fibers or graphite. The recitations are fully supported in the specification. *See, e.g.*, Paragraph 91-95. Oppitz does not teach such a composition. Applicants therefore submit that independent claim 22 is allowable as are the claims depending therefrom.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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